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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,277	03/29/2001	Srinivas Gutta	US 010098	4455

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NXP, B.V.
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EXAMINER

RAMAN, USHA

ART UNIT	PAPER NUMBER
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2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/821,277	Applicant(s) GUTTA ET AL.	
	Examiner Usha Raman	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 2-11 and 17-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 12-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments with respect to claim 1 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vamparys (WO 01/15449) in view of Battiti et al. "Democracy in Neural Nets: Voting Schemes for Classification", Neural Networks, vol. 7, no. 4, pp. 691-707 (1994).

With regards to claim 1, Vamparys discloses a method for recommending television programs comprising the steps of:

Obtaining a list of one or more television programs (program metadata sent to profiling server; see page 8, lines 18-21)

Providing the list of programs to at least three different program recommenders R1 (706), R2 (708), R3 (710) (see figures 7 and 8, and description in page 15, lines 19-page 16, lines 11 and page 17, line 25-page 18 line 3), each of the recommenders using a different stochastic methods (see page 16, lines 19-23, page 17, lines 17-21, page 18 lines 15-19);

Obtaining a user profile (i.e. a customized recommendation list) from each of the three different program recommenders, R1, R2, and R3; (each of the

recommenders generates a aggregate recommendation list for the user; see page 19, lines 2-4)

Obtaining for each program on said list, a set of recommendation scores S1 (712), S2 (714) and S3 (716) from each of the said recommenders, R1, R2, and R3 (see page 6, lines 1-4 and page 16, lines 3-5), the respective score from set of recommendation scores S1, S2, and S3 corresponding to a respective user profile (see figure 7 and page 6, lines 1-4)

Generating for each program on the list, a combined recommendation score, C, computed by applying a voting process to each of the recommendation scores, S1, S2, and S3; (see page 6, lines 1-4,)

Recommending the program to a user, by presenting the combined recommendation score, C to the user (see page 8, lines 22-24).

Vamparys fails to disclose the step of applying a majority rule voting process to make the combined recommendation for the user.

Battiti discloses in a similar field of endeavor, combining the outputs of a set of classifiers by utilizing a majority rule voting scheme in order to reach a combined decision with a higher performance. See Battiti: page 691 and 700-701.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Vamparys by utilizing the majority rule voting scheme of Battiti, so that when a majority of the recommendation engines recommend an item, the item is recommended to the user. The motivation as stated

by Battiti, is to utilize a voting scheme that yields higher performance in terms of lower rejection rate and higher accuracy.

With regards to claim 12, Vamparys discloses a method of recommending television programs, comprising:

Obtaining a listing of one or more television programs (see page, lines 18-21);

Obtaining a plurality of user profiles from the list of one or more television programs (plurality of customized recommendation lists obtained from a filtering engines, see page 19, lines 13-15);

Obtaining at least an explicit recommendation score, E, for one or more television programs corresponding to a first user profile of the plurality of user profiles (recommendation list generated by the collaborative filtering engine (708), weighted by the weight coefficient 714, see page 16, lines 21-24, page 17, lines 3-7, and figure 7) using a first stochastic method (i.e. rules of collaborative filtering engine);

Obtaining at least an implicit recommendation score I, for one or more television programs corresponding to a second user profile of said plurality of the user profiles (recommendation list (830) generated based on user monitoring data using engine (820), and weighted by the weight coefficient (828), see page 13, lines 7-8, page 14, lines 18-21, page 18, lines 3-6 and figure 8) using a second stochastic method (rules of monitoring matching engine 820);

Obtaining at least a feedback recommendation score, F for one or more television programs corresponding to a third user profile of said plurality of user

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profiles (recommendation list (832) generated based on user tastes (i.e. explicit user feedback defining user tastes) by the filtering engine (814) and weighted by coefficient 822, see page 12, lines 13-14, page 14, lines 18-21, page 19 lines 4-8) using a third stochastic method (rules of taste matching engine 814), the first, second and third stochastic methods being different from each other (see page 16, lines 21-23 and page 18, lines 14-19);

Generating for each television program, of said plurality of user profiles, a combined recommendation score, C, based on applying a voting process to each of the explicit recommendation score, the implicit recommendation score, and the feedback recommendation score (see page 6, lines 1-4, page 15, lines 23-page 16, line 2, wherein the aforementioned recommendation lists are aggregated, step 718 in figure 7); and

Recommending the combined recommendation score, C, to a user by presenting the combined recommendation score, C, to the user (see page 8, lines 22-24).

Vamparys fails to disclose the step of applying a majority rule voting process to make the combined recommendation for the user.

Battiti discloses in a similar field of endeavor, combining the outputs of a set of classifiers by utilizing a majority rule voting scheme in order to reach a combined decision with a higher performance. See Battiti: page 691 and 700-701.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Vamparys by utilizing the majority rule voting

scheme of Battiti, so that when a majority of the recommendation engines recommend an item, the item is recommended to the user. The motivation as stated by Battiti, is to utilize a voting scheme that yields higher performance in terms of lower rejection rate and higher accuracy.

With regards to claim 13, Vamparys teaches that the voting process is based on stochastic process (see page 16, lines 12-23, "the heuristic algorithm")

With regards to claim 14, Vamparys teaches that the stochastic method comprises a memory based learning process and a rule based learning process (see page 16, lines 5-11).

With regards to claim 15, the modified system further teaches of combining the stochastic methods according to a combination scheme comprising a majority rules scheme. See Battiti: pages 700-701.

With regards to claim 16, Vamparys teaches that the combined recommendation score (aggregation of the recommendations, see page 15, lines 23- page 16, line 2) enables the user to select a television program of interest (see page 15, lines 13-15)

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory

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action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

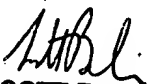
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

UR


SCOTT E. BELIVEAU
PRIMARY PATENT EXAMINER